



Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural ResourcesAlan W. Klimek, P.E. Director
Division of Water Quality

May 8, 2007

CERTIFIED MAIL
RETURN RECEIPT REQUESTEDMr. Sterling B. Cheatham, City Manager
PO Box 1810
Wilmington, NC 28402-1810**SUBJECT: Initial Response to Application For Special Order by Consent
City of Wilmington, New Hanover County and Town of Wrightsville Beach**

Dear Mr. Cheatham:

We are in receipt of your April 20, 2007 application for a Special Order by Consent (SOC) for the M'Kean Maffit (SSWWTP) and the James A. Loughlin (NSWWTP) wastewater treatment facilities and the accompanying Ten Point Plan (Plan). Enclosed please find initial comments pertaining to Part III of the SOC application. The City, County of New Hanover and the Town of Wrightsville Beach are to be commended for the significant actions that they have taken to address this situation in terms of evaluations, repairs, upgrades and flow diversions. However, we remain concerned about the high level of flow through the Northeast Interceptor (NEI) and the reported continuous increases of flow to that system. It is our understanding that the flows through the NEI have increased from 700,000 to 900,000 gallons per day above the operating levels prior to the effective date of the moratorium. Further, it appears that based on the Plan, flow in the NEI will continue to increase during the entire NEI repair project and proposed SOC schedule.

One of our primary concerns is that the submittal reflects inadequate control of flow. Part of the Plan includes diversion of flow from the NEI to the NSWWTP. Although we understand that the NSWWTP expansion and upgrade is scheduled to be completed during 2009, currently the flows to the NSWWTP are approaching that facility's design capacity. We also have questions regarding some of the flow calculations contained in the submittal. Because this is a rather complex situation involving several governmental entities, it will likely take some time to resolve these issues while the flows in the NEI and NSWWTP continue to increase. However, you are required by the Water and Air Quality Reporting Act, G.S. 143-215.63 through 143-215.69, to prevent discharge of any wastes to a waste disposal system (1) in excess of the capacity of the system or (2) which the system cannot adequately treat.

Therefore, based on the continuing increases in flow and questions that remain about the reliability of the NEI, the City of Wilmington, County of New Hanover and Town of Wrightsville Beach should upon receipt of this letter stop issuing building permits that would be tributary to the NEI until these issues can be adequately resolved. Again, we appreciate the significant steps that have been taken and hope that we can expeditiously resolve these outstanding matters and proceed with an SOC and eventually total resolution to this problem.

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North Carolina
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Mr. Cheatham
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Should you have any questions, please contact Mr. Ed Beck, Regional Supervisor of the Surface Water Protection Section's Wilmington Office at (910) 796-7215.

Sincerely,



Alan W. Klimek, P.E.

Enclosure

cc: County of New Hanover
Town of Wrightsville Beach
Ed Beck, SWPS WiRO
Rick Shiver, DWQ ADRO
Paul Rawls, SWPS Chief
Susan Massengale, DWQ PIO

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Initial Comments Part III SOC Application

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The following is offered as initial comments for Part III of the application and Ten Point Plan. We ask that you respond to these comments within 10 days of receipt of this letter:

In the opening of this section the City asks for additional flow for the North Side Waste Water Treatment Plant (NSWWTP) but does not identify a specific quantity of flow being requested.

Comment: Please provide quantity of requested flow, justification for the requested flow, how the flow will be allocated and to what source.

A statement is made that 750,000 gpd can be diverted from the NEI based on the physical configuration of the system. This diversion of flow would be directed to the NSWWTP.

Comment: Please describe how this could be accomplished and the time frame for such diversion.

It is noted that the highest monthly flow over the past 12 months at the NSWWTP was 7.992 MGD (the NSWWTP has permitted limit of 8.0 mgd.) A statement is made that if it becomes necessary to divert flows from the NEI to the NSWWTP that facility may exceed its current capacity until the expansion/upgrade is completed. Further it is stated that the City has contracted for a re-rating study to establish the plant's capabilities, if any, beyond 8 mgd.

Comment: Authorization for the aforementioned diversion of flow from the NEI to the NSWWTP in excess of that facilities current permitted capacity (prior to expansion) must be obtained prior to diversion of any flow that will result in flow limit exceedences. It is imperative that the City of Wilmington work closely with the DWQ to ensure this process is timely. This statement in no way guarantees that such approval will be granted.

The goal of this study is to establish (a) what flow can be processed through either the existing plant process configuration or various combinations of existing and new or expanded systems while still discharging no more than the mass load equivalent of any pollutant concentration limits allowed by the existing WWTP NPDES permit and (b) when this configuration will be available to produce this quality effluent.

The results of this report will be available September 2007.

Comment: Permission for the introduction of flow to the NSWWTP above the current NPDES permitted limit will in part only be considered based on the demonstration that such additional flow will not cause impact to receiving waters. Upon submission of the re-rating study (projected completion date September 2007) it will take the Division of Water Quality at a minimum 45 days to process that request.

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If no flow capacity beyond 8 MGD can be identified, the applicant will consider other flow limiting strategies to remain below the current 8 MGD NPDES Permit Capacity until the 16 MGD plant is operational. If (a) NEI improvements are installed such that its capacity and reliability are improved and (b) SSWWTP capacity remains, it may be possible to divert limited flows from the NSWWTP service area to the SSWWTP service area to avoid the NSWWTP exceeding 8 MGD.

Comment: Changes in the City of Wilmington collection system noted above requires prior approval from the DWQ. Based on the above, does the City of Wilmington believe that flows to the NSWWTP will exceed the current permit limit of 8.0 mgd prior to completion of NSWWTP upgrades/expansion projected for first quarter 2009? Please be reminded that it is the responsibility of the City of Wilmington to manage flow to the NSWWTP in a manner to maintain compliance.

If capacities beyond 8 mgd are identified for either the existing plant or any combination of existing and new expanded/upgraded system, the increased flows enabled by this process configuration and their availability will be used to accommodate (a) diversion from the NEI and (b) additional flows from the NSWWTP service area. With respect to the NEI diversion, priority will be given to enable removal of the quantity of flow added to the NEI since the moratorium was imposed. Plant performance will be maintained at levels sufficient to yield effluent concentration at or below mass load equivalents allowed within the current NPDES permit.

Comment: Permission for the introduction of flow to the NSWWTP above current the NPDES permitted limit will in part only be considered based on the demonstration that such additional flow will not cause impacts to receiving waters. With respect to the NEI diversion and the statement that priority will be given to enable removal of the quantity of flow added to the NEI since the moratorium was imposed, it is the opinion of the Division of Water Quality that all available capacity in the diversion to the NSWWTP should be utilized to reach pre moratorium flow level until the NEI is operating within design specification and certified operationally reliable.

Upgrades planned to expand NSWWTP are approximately 40 % completed to date. If additional flow processing capacity can be assured, the applicant will implement a system to monitor the allocation and connection of these flows to the system in order to maintain plant flows at or less than those flows identified with the re-rating study believed to yield effluent concentration at or below mass load equivalent implied within the current NPDES permit.

Comment: DWQ has to date not approved such processing capacity; authorization for diversion of flow from the NEI to the NSWWTP in excess of that facility's permitted capacity must be obtained prior to diversion and if approved would be part of the SOC.

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The request for additional flow to the NSWWTP is intended to provide flexibility in reducing flows to the NEI and to enhance the ability of the City and County to manage capacity at both the NSWWTP and SSWWTP. In an attempt to reduce and limit flows to the NEI and protect and manage capacity at the NSWWTP until completion of the expansion and upgrade, a Ten Point Plan was approved by the governing bodies of both the City and County. Table "1" is a summary of the Ten Point Plan with corresponding impact, both immediate and projected for the NEI and NSWWTP.

Comment: Consideration for additional flow to the NSWWTP will be primarily predicated on management of the NEI issue. Allocation of flows will be only allowed in keeping with provisions of the SOC.

The following are comments pertaining to Table "1" of the application.

1. Immediately divert a reasonable amount of flow (up to 250,000 gallons per day of Porters Neck area sewer flows from the NEI to Northside. Divert additional flow after the SOC and/or plant capacity increases are in place.

Comment: Based on information provided in this application the highest monthly flow over the past 12 months at the NSWWTP was 7.992 MGD. Please provide an analysis of the projected growth and associated flow that will be tributary to the NSWWTP until the completion of the NEI project, whether or not a 250,000 gpd diversion of flow can be accomplished immediately without causing NPDES violations at the NSWWTP, whether or not the diversion and infiltration/inflow work on the area tributary to the NEI will bring the flow in the NEI back to a level pre moratorium.

2. Enter into contractual negotiation with the State of North Carolina immediately, committing to the NEI Improvements and request compliance flexibility until they are completed.

Comment: SOC application was received April 17, 2007. Please explain what is meant by "compliance flexibility".

3. Give engineering consultants notice to proceed with initiative to increase Northside WWTP capacity earlier than scheduled.

Comment: Please explain what "Give engineering consultants notice to proceed with initiative to increase Northside WWTP capacity earlier than scheduled" means.

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4. City and County to immediately initiate a sewer insert program for all manholes in the NEI Area and the basin served by the Northside WTP to reduce rainwater inflow. Then strategically and appropriately expand this program system-wide.

Comment: Any program to prevent the introduction of extraneous flow into the system is viewed as positive.

5. City and County to fund system investigation and repair program as identified by the CDM Study in the NEI Area and expand the program system-wide to reduce Stormwater and ground water flows into the sewer system.

Comment: Follow-through with identified needed repairs should continue as rapidly as possible. Please provide, effective upon receipt of this letter, monthly updates on the status of repairs/upgrades of the NEI (the first monthly update is due on or before June 1, 2007.

Any program to prevent the introduction of extraneous flow into the system is viewed as positive.

6. Building permits for residential construction in the NEI Area would continue to be Issued.

Comment: This is unacceptable. Based on information provide to the Division of Water Quality to date, it appears that flow in the NEI has increased by 700,000 to 900,000 gallons per day above the operating level prior to the effective date of the moratorium and continues to increase. Further there appears to be no immediate means to divert a significant amount of flow to the NSWWTP to resolve this matter.

Continued issuance of building permits to a reportedly unreliable system that is also reportedly exceeding its normal operating capacity is viewed as inappropriate. The City of Wilmington, County of New Hanover and Town of Wrightsville Beach should, effective immediately, stop issuing residential building permits tributary to the NEI, provide to the Division of Water Quality a list of all outstanding residential building projects that have received building permits to date and are not yet tributary to the NEI system, and provide a list of expected flow that will become tributary to the NEI when those projects are complete.

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7. Commercial Building Permits in the NEI Area that add new flows will be limited to 80% of the average increase in commercial flows over the past two years, until plant capacity is increased or the NEI improvements are completed.

Comment: This is unacceptable. Continued issuance of building permits to a reportedly unreliable system that is also reportedly exceeding its normal operating capacity is viewed as inappropriate. The City of Wilmington, County of New Hanover and Town of Wrightsville Beach should, effective immediately, stop issuing residential building permits, provide to the Division of Water Quality a list of all outstanding residential building projects that received building permits to date and are not yet tributary to the NEI system, and provide a list of expected flow that will become tributary to the NEI when those projects are complete.

8. City and County to stop authorizing developer prepared applications for state permitted sewer system extensions in the Northside WWTP Area until plant capacity is increased. This would cover adding main lines (new sewer extensions) to the system).

Comment: Management of the flows tributary to the NSWWTP is viewed as prudent management to keep flows at current NSWWTP NPDES permit limits.

9. Water use conservation program continues and expanded for City customers and begins for County customers to reduce sewer flows.

Comment: Water use conservation program is viewed as prudent management technique to reduce flows in the NEI.

10. Continue with capacity planning, allocation, and management process for the system.

Comment: Proper and timely planning along with continuous evaluation of the collection and treatment system are viewed as essential in environmental protection and capacity management for future growth. The City is commended in its effort to establish a program to prevent negative short-term and long-term capacity issues.